BEFORE THE
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
UNITED STATES DEPARTMENT OF TRANSPORTATION

In the Matter Of:

Docket No. RSPA --99—6223 (HM-213B)
Hazardous Materials: Safety Requirements for External Product Piping on Cargo Tanks Transporting Flammable Liquids
Advance Notice of Proposed Rulemaking (ANPRM)

Comments Filed By:

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Clifford J. Harvison, President

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Before the Administrator:

National Tank Truck Carriers, Inc. (NTTC) is a trade association representing over 170 motor carriers specializing in the nationwide (and international) distribution of liquid and dry products in cargo tank motor vehicles. Given the nature of tank truck operations, the vast majority of our members are substantially involved in the transportation of hazardous materials, including flammable liquids.

Since this ANPRM is intended to assist the Administrator in determining whether or not future regulatory action is warranted, NTTC has conducted an extensive membership-wide survey of the equipment resources available to NTTC carriers, primarily by specification type (and non specification units) and trailer age. This survey produced reliable and verifiable data from 151 NTTC members, and we will cite those data points (as appropriate) in responding to the inquiries posed in the ANPRM.

Additionally, we underscore the fact that NTTC represents motor carriers. To the extent that the ANPRM seeks information and/or opinion with respect to loading and unloading facilities, manufacturing techniques, etc. we will withhold comment and yield to the expertise of respondents such as the American Petroleum Institute and the Truck Trailer Manufacturers Association.

1. Are the statistics and data (e.g., cargo tank population, useful life of a cargo tank, accident frequency and consequences), costs (e.g., purging system, short-loading lines, new construction, retrofit), and potential benefits (e.g., fatalities, injuries, and property damages prevented) provided in this ANPRM accurate?

NTTC acknowledges that it is very difficult to obtain statistical information relevant to this docket. There is no mandated reporting of vehicle ownership by cargo tank specification. Even data collected by trade associations (such as NTTC) is incomplete because not all "players" in an industry belong to voluntary groups.

For example, the 151 respondents to NTTC's membership survey reported a total fleet of 10,648 cargo tank motor vehicles designed, primarily, for the transportation of petroleum products (i.e. Specifications MC 306, DOT 406 and older equivalents). Of these, 8,350 were units consisting of 4 or more compartments. Conversely, we have no idea of the number of units operated by the private fleets of the major oil companies, and we suspect that the number of gasoline trailers operated by smaller (and much more numerous) petroleum marketing firms (e.g. "jobbers") would substantially exceed that number operated by NTTC members.

Obviously, the same uncertainties prevail with regard to accidents. For example, the docket's preamble references a "sampling" of five so-called "wetlines accidents". Here, the problem is that there is no definition of the term "wetlines accident". Certainly, the

reader knows that a vehicular impact ruptured the product piping. Importantly, however, we don't know if that impact also ruptured the exterior shell of the cargo tank and/or damaged the internal valves (which would (potentially) release several additional gallons of flammable liquids in the accident scenario).

For years, representatives of the Administrator (and RSPA's sister agency, the Federal Motor Carrier Safety Administration) have informally characterized a "wetlines accident" as one in which the vehicle's manifold and/or product piping has been damaged to such an extent that flammable liquid is released at the accident site.

We respectfully disagree with this characterization. Accidents in which both the piping/manifold complex and the tank shell have been ruptured should not be considered "wetlines accidents". It is reasonable to assume that a severe vehicle impact on the side shell of a cargo tank will cause rupture and a substantial product loss with the potential for ignition.

2. What is the useful life of a cargo tank motor vehicle utilized for the transportation of flammable liquids?

In terms of "useful life", we note that approximately 36 percent of all petroleum units operated by NTTC members were constructed prior to 1990. Eleven percent of all petroleum units were constructed prior to 1980. Therefore, it is reasonable to assume that a substantial number of cargo tanks, in flammable liquid service today, are in excess of 20 years old.

3. What percentage of cargo tank motor vehicles are operated at maximum weight limits such that any additional weight of a system to eliminate wetlines would impose a weight penalty?

Virtually all cargo tanks transporting petroleum products are loaded to the maximum weight limits, specified by Federal or state law. Since these vehicle weight limits apply to all commercial vehicles (with narrow exceptions) it stands to reason that any additional equipment weight added to eliminate wetlines must be subtracted from "payload" in order to conform to those limits.

4. For cargo tank motor vehicles in flammable liquid service, what is the average distance per trip?

In metropolitan areas, the average "round trip" miles will range between 40 and 55 miles. In suburban and rural areas, however, there is no "average" length of haul. With further respect to deliveries to suburban and rural areas, we submit that factors such as seasonality often trump "length of haul" in describing petroleum distribution logistics. For example, the state of Florida has a large number of suburban and rural gasoline outlets. During the Winter months, tourism greatly increases gasoline consumption, and (statewide) distribution patterns change. Independent gasoline retailers often change suppliers (or purchase on the so-called "spot market) which also alter traffic lanes.

5. In addition to the potential benefits described in this ANPRM, are there additional benefits, measurable or otherwise, that would result from implementation of measures to reduce wetlines risks?

NTTC is unaware of any such "potential benefits".

6. Should a benefit-cost analysis include the reduction of risks associated with low frequency, high-consequence events?

Historically, regulatory agencies have used these factors in cost/benefit analyses, and we see no reason to change in this instance. However, as noted above, we believe it incumbent on the Administrator to make a more thorough determination of what constitutes a "wet lines accident". We continue to believe that accidents, involving only the manifold and piping which lead to loss of life and property, are extremely rare.

7. Would requirements for systems to reduce the risk posed by wetlines for all newly constructed cargo tank motor vehicles result in significant reductions in per unit cost because of economies of scale?

No. The addition of any additional accessories or hardware on a cargo tank will always increase the "per unit cost". However, it is reasonable to assume that the magnitude of increase will be marginally less if the equipment is added at the manufacturing stage as opposed to a retrofit. For example, the cost of equipment downtime (a prime factor in any vehicle retrofit) would not be a factor if the same function were performed at the point of manufacture. Importantly, the Administrator should consider "after market" costs (whether systems are installed at the point of manufacture of the cargo tank or retrofitted). For example, it is reasonable to expect that -- if such systems are required -- RSPA will amend Part 180 to require relevant tests and inspections of the new accessory. The systems will have to be maintained. All of these factors should be included in any cost/benefit calculations performed by RSPA.

8. What safety practices, other than those described in this ANPRM, are motor carriers currently utilizing to reduce the risks associated with the transportation of flammable liquids in wetlines?

Obviously, the potential for wetlines accidents (and their consequences) is an element of carrier training programs for tank truck drivers. However, because such accidents almost always involve impingement by another vehicle on the side of a cargo tank there is little specialized knowledge or techniques that can be imparted in a training session.

9. How effective are these safety practices in reducing the risks associated with wetlines on cargo tanks?

Since there are so few relevant resources available (and wetlines accidents so rare), it would be futile to attempt to gauge the effectiveness of such safety practices.

10. What are the costs of these safety practices currently utilized?

Since there are so few relevant resources available (and wetlines accidents so rare), it would be futile to attempt to estimate the costs of such safety practices.

11. Would an industry or industry/government sponsored research initiative to explore new methods to eliminate wetlines be of value?

Such might well depend on the factors to be researched. For example, we already know that any "solution" to the wetlines issue must weigh both safety and environmental considerations. We already know that one benefit of so-called "bottom loading/vapor recovery" is the fact that thousands of drivers no longer have to be positioned at the top of the tank to control the loading process. We already know that vapor release (during loading) has been practically eliminated (a positive environmental consideration). In those contexts, wetlines has been a very beneficial trade-off.

Are there new technologies on the horizon which will eliminate the exposed manifolds and product piping while at the same time retaining the environmental and driver safety benefits realized in the past three decades? Will these technologies economically accommodate additional safety and operational considerations such as concerns about static electricity, "one size fits all" adapters, relative ease in unloading, tax computations, etc.? It would be imprudent to say "no"; but indeed speculative to say "yes".

12. If so, what would be the value of such a partnership?

As noted above, any such value would have to be expressed in speculative terms.

13. Concerning the short and recessed loading lines systems described in this ANPRM, what modifications to loading arms or hoses at existing loading racks would be necessary to accommodate short, including recessed within the cargo tank wall, loading lines?

With regard to questions 13 through 17, please note that NTTC has no expertise in these areas. Instead, we would defer to the responses of the American Petroleum Institute.

14. What would be the cost of these modifications?

15. Can loading rack fuel tax accounting systems be modified to allow for product reversal once the cargo tank is full and the internal valves are closed, thus draining the loading lines?

16. Is this option viable?

17. What would such a modification cost?

18. Are the short and recessed loading lines options practicable for installation on new cargo tank motor vehicles?

This question assumes a rather fundamental redesign of cargo tank motor vehicles. Therefore, we would defer to the expertise of the Truck Trailer Manufacturers Assn. In any event, we note that the installation of "short and recessed loading lines" might mitigate the wetlines issue, but won't eliminate the problem.

19. Are either of these options practicable for installation on existing cargo tank motor vehicles (i.e., retrofit)?

NTTC believes that retrofitting existing tanks with "short or recessed" loading lines is not a practicable alternative. It is reasonable to assume that such retrofitting would be cost prohibitive and involve considerable downtime. Additionally, any "hot work" (i.e. cutting and welding) on petroleum trailers raises additional safety considerations. Given the thousands of trailers potentially involved, we question the capacity of existing registered facilities able to do this work. RSPA should discard this alternative.

20. Are there any motor carriers actively operating or contemplating operating cargo tank motor vehicles with such a design?

NTTC is unaware of any carriers using (or contemplating use of) trailers with short or recessed loading lines.

21. If so, what configuration was utilized and what was the cost to modify the cargo tank?

Not Applicable

22. Would maintaining a vehicle with such a design (i.e., independent loading lines) result in higher or lower costs than currently utilized designs?

Again, we are unaware of any operational experience with such a trailer.

23. How effective is a purging system in reducing the risks posed by wetlines?

It is our understanding that one major private petroleum carrier (Sun Oil Co.) operates some trailers with an installed purging system. We are unaware of any reports, analyses, etc., authored by Sun Oil, which would detail the effectiveness or efficiency of the purging equipment.

24. Is a purging system practicable for installation on new cargo tank motor vehicles?

As noted above, it is reasonable to assume that installation of equipment at the point of trailer manufacture can be done in a more practicable and cost-effective manner (when compared to retrofit).

25. Is a purging system practicable for installation on existing cargo tank motor vehicles (i.e., retrofit)?

NTTC has been informed that the installation of some purging equipment on tank trailers may be done without "hot work" (i.e. cutting and/or welding). If such is the case, we believe that retrofitting is "practicable". Of course, retrofitting then raises significant concerns about equipment costs, labor costs and equipment downtime.

26. Are there any motor carriers actively operating or contemplating operating cargo tank motor vehicles with a purging system?

With the exception of the Sun Oil Co. (noted above), NTTC is unaware of any carrier operating (or contemplating the operation of) trailers with purging equipment.

27. If so, what configuration is utilized (automatic, manual, other) and what was the cost to modify the cargo tank?

Again, the Sun Oil Co. would be the best source for this information.

28. What are the costs to maintain a cargo tank motor vehicle with a purging system installed?

See NTTC's response to Question #27.

29.Would improved conspicuity for cargo tank motor vehicles generally, or wetlines in particular, reduce wetlines risks?

Current Federal regulations, issued by the National Highway Traffic Safety Administration, mandate conspicuity accessories (primarily, retro-reflective tape) on the sides of cargo tank motor vehicles. Given the fact that virtually all wetlines incidents involve collisions (with one or both vehicles in motion) with the side of the cargo tank, we fail to see how enhanced conspicuity markings would enhance safety. Obviously, conspicuity markings are not effective during daylight hours.

30. How effective would improved conspicuity be?

We do not believe that improved conspicuity would be effective, in the least.

31. Are there marking or lighting systems currently available that could improve the visibility of cargo tank motor vehicles or components of those vehicles to other drivers?

With rare exceptions, cargo tank motor vehicles (used in the transportation of petroleum products) are large units constructed of aluminum (or painted in bright colors) and festooned with lights, reflectors, conspicuity tape, placards, markings and corporate logos. Enhancing the visibility of tanks and tank components would be a challenge.

32.Are there cost-effective designs for accident damage or under-ride protection (e.g., guards), specification or otherwise, that would reduce the risks posed by unprotected product piping?

Given the inherent trade-off involved between Federal and state gross weight limitations and the tare weight added by the installation of side impact protection devices (sufficient in strength and mass to protect against collision by an on-coming motor vehicle, we believe that such "guards" would be counterproductive from the standpoint of safety. Simply stated, this means more trucks on the road to transport the same amount of product, which cannot be justified in today's transportation environment. Several years ago, the National Highway Traffic Safety Administration (NHTSA) conducted an open docket on the matter of side impact protection guards. We suggest that RSPA consult with NHTSA and review the findings in that docket. (See NHTSA Docket 1-11, December 30, 1991).

33. What would these designs cost?

Again, we suggest that RSPA consult with NHTSA relative to cost.

34. What level of protection (i.e., impact forces sustained) would be both cost-effective and provide a significant reduction in risks associated with wetlines?

NTTC is unaware of any side impact protection system which would be both "cost effective" and provide significant protection against wetlines incidents.

35. Would a non-regulatory approach, such as an awareness campaign to alert the public as to the hazards posed by wetlines, be successful in helping to reduce the risks posed by wetlines?

RSPA documents the fact that wetlines accidents are rare. We do not believe that "awareness campaigns" or other similar public information or public relations efforts would be productive in eliminating or reducing such accidents.

36. In addition to the purging and short-line systems described in this ANPRM, are there other systems currently being marketed or in development that can evacuate wetlines after loading or prevent wetlines from retaining liquid during loading operations?

NTTC is unaware of any other systems or concepts (being marketed or under development) which would prevent wetlines accidents.

Respectfully submitted:

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